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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,583	03/25/2004	Jason M. Bell	AUS920040052US1	7109
45993	7590	04/30/2008	EXAMINER	
IBM CORPORATION (RHF) C/O ROBERT H. FRANTZ P. O. BOX 23324 OKLAHOMA CITY, OK 73123			LOVEL, KIMBERLY M	
		ART UNIT		PAPER NUMBER
		2167		
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		04/30/2008	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/809,583	BELL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	KIMBERLY LOVEL	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 January 2008.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-19 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-19 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

1. Claims 1-19 are rejected.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 January 2008 has been entered.

### ***Specification***

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification fails to define the term computer readable medium.

### ***Claim Objections***

4. Claim 19 objected to because of the following informalities: The claim recites "The article The medium." The term "medium" should be deleted since the independent claim is directed towards an article. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1, 8 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner fails to find antecedent basis within the specification the limitation of the value of the real-time attribute being in a format incompatible with a directory access request return format and then to receive a compatible format.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claims 1-7 and 14-19** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

9. **Claim 1** is directed towards a logical device. The claimed system can be interpreted as comprising entirely of software per se according to one of ordinary skill in the art. Therefore, the claim language fails to provide the necessary hardware required

for the claim to fall within the statutory category of a system.

According to MPEP 2106:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

Since **claims 2-8** are dependent on claim 1 and fail to overcome the deficiencies of claim 1, the claims are rejected on the same grounds as claim 1.

10. **Claims 14** is directed towards an article of manufacture comprising a computer readable medium. While specification defines a storage medium, the specification fails to explicitly define the term computer readable medium. Therefore, when the term is interpreted by one of ordinary skill in the art, the term can be construed to cover non-statutory embodiments which improperly include network transmission lines (interpreted as wired and wireless transmission), wireless transmission media, signals propagating through space, radio waves, infrared signals, etc.

See, e.g., *In re Nuitjen*, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18) “A transitory, propagating signal like Nuitjen’s is not a process, machine, manufacture, or composition of matter.’ … Thus, such a signal cannot be patentable subject matter.”

Therefore, the claimed subject matter fails to fall within one of the four statutory classes.

According to MPEP 2106:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

Since **claims 15-19** are dependent on claim 14 and fail to overcome the deficiencies of claim 14, the claims are rejected on the same grounds as claim 14.

11. To allow for compact prosecution, the examiner will apply prior art to these claims as best understood, with the assumption that applicant will amend to overcome the stated 101 rejections.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**12. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2002/0147857 to Sanchez, II et al (hereafter Sanchez) in view of US PGPub 2008/0086402 to Patel et al (hereafter Patel).**

**Referring to claim 1**, Sanchez discloses a logical device for handling dynamic attributes in a static directory comprising:

a set of attribute declarations [list of attributes] for a directory structure containing at least one declaration for a directory attribute (see [0050]);

at least one Real-time Attribute Processor (RTAP) [persistent data manager 81] configured to determine a value for an attribute (see [0044] and [0048]);

an RTAP selector configured to select an RTAP from a plurality of attribute processors according to a predetermined selection schema and to invoke said selected RTAP (see [0030], lines 7-15); and

a directory attribute processor configured to parse requests for access to directory attribute values, to detect requests for attributes declared in said attribute declarations, to operate said RTAP selector to invoke a corresponding RTAP (see [0056]), to receive an attribute value, and to return said attribute value to a requester [populating the object] (see [0062]).

However, Sanchez fails to explicitly disclose the further limitations wherein the attributes are to be handled as a real-time attribute whose value is retrievable outside of static memory of a directory structure and obtaining an attribute value from a real-time source external to said directory structure, and by converting said obtained value to conform to a directory request return format. Patel discloses the wherein the attributes are to be handled as a real-time attribute, the value of said declared real-time attribute is retrievable external of said directory structure [attributes fetched in real-time] and being in a format incompatible with a directory access return format and obtaining an

attribute value from a real-time source external to said directory structure, said obtained value being incompatible with a directory access request return format, and by converting said obtained value to conform to a directory request return format (see [0074] and [1056]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize concept of fetching dynamic attributes in real-time as disclosed by Patel with the logical device of Sanchez. One would have been motivated to do so in order to introduce the concept of providing customer personalization in real-time to Sanchez which increases accuracy of the dynamic data and decreases the resources required to poll and push dynamic data to the LDAP (Patel: see [0005]).

**Referring to claim 2,** the combination of Sanchez and Patel (hereafter Sanchez/Patel) discloses the logical device as set forth in claim 1 wherein said directory attribute processor is further adapted to suppress storage of said attribute value in a directory [fetching attributes in real-time] (Patel: see [0156]).

**Referring to claim 3,** Sanchez/Patel discloses the logical device as set forth in claim 1 wherein said RTAP selector is configured to select an RTAP based upon a variation of a name of said resolved directory attribute (Sanchez: see [0019] and [0031]).

**Referring to claim 4,** Sanchez/Patel discloses the logical device as set forth in claim 3 wherein said name variation comprises a name identifying a function selected from the group of a logical device, a device address, a name of a JAVA class [Java

objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 5**, Sanchez/Patel discloses the logical device as set forth in claim 1 wherein said RTAP comprises a function selected from the group of a logical device, a device address, a name of a JAVA class [Java objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 6**, Sanchez/Patel discloses the logical device as set forth in claim 1 wherein said RTAP and said directory attribute processor are configured to handle Lightweight Directory Access Protocol [LDAP] requests for attribute values (Sanchez: see [0008]).

**Referring to claim 7**, Sanchez/Patel discloses the logical device as set forth in claim 1 wherein said directory attribute processor is configured to disallow attribute modify requests for attributes declared as real-time (Sanchez: see [0038]).

**Referring to claim 8**, Sanchez discloses a method for handling real-time attributes in a static directory comprising:

providing at least one declaration for a directory attribute (see [0050]);  
parsing requests for access to directory attribute values to detect requests for attributes declared in said attribute declarations (see [0056])

invoking at least one Real-Time Attribute Processor (RTAP) selector from a plurality of attribute processor according to a predetermined selection schema and to invoke said selected RTAP (see [0030], lines 7-15); and

returning to a requester said attribute value [populating the object] (see [0062]).

However, Sanchez fails to explicitly disclose the further limitations wherein the attributes are to be handled as a real-time attribute whose value is retrievable outside of static memory of a directory structure and obtaining an attribute value from a real-time source external to said directory structure, and by converting said obtained value to conform to a directory request return format. Patel discloses the wherein the attributes are to be handled as a real-time attribute, the value of said declared real-time attribute is retrievable external of said directory structure [attributes fetched in real-time] and being in a format incompatible with a directory access return format and obtaining an attribute value from a real-time source external to said directory structure, said obtained value being incompatible with a directory access request return format, and by converting said obtained value to conform to a directory request return format (see [0074] and [1056]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize concept of fetching dynamic attributes in real-time as disclosed by Patel with the logical device of Sanchez. One would have been motivated to do so in order to introduce the concept of providing customer personalization in real-time to Sanchez which increases accuracy of the dynamic data and decreases the resources required to poll and push dynamic data to the LDAP (Patel: see [0005]).

**Referring to claim 9,** Sanchez/Patel discloses the method as set forth in claim 8 wherein said step of selecting and invoking a RTAP selector comprises selecting an

RTAP based upon a variation of a name of said resolved directory attribute (Sanchez: see [0019] and [0031]).

**Referring to claim 10**, Sanchez/Patel discloses the method as set forth in claim 9 wherein said step of selecting an RTAP based upon an attribute name variation comprises a name identifying a function selected from the group of a logical device, a device address, a name of a JAVA class [Java objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 11**, Sanchez/Patel discloses the method as set forth in claim 8 wherein said step of invoking RTAP from the group of a logical device, a device address, a name of a JAVA class [Java objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 12**, Sanchez/Patel discloses the method as set forth in claim 8 wherein said step of parsing a request comprises parsing a Lightweight Directory Access Protocol [LDAP] requests for attribute values (Sanchez: see [0008]).

**Referring to claim 13**, Sanchez/Patel discloses the method as set forth in claim 8 wherein said step of returning to a requestor an attribute value comprises returning said value according to a Lightweight Directory Access Protocol (Sanchez: see [0008]).

**Referring to claim 14**, Sanchez discloses an article of manufacture comprising: a computer readable medium suitable for encoding software programs; and one or more software programs encoded by said medium and configured to cause a processor to perform the steps of:

providing at least one declaration for a directory attribute (see [0050]);

parsing requests for access to directory attribute values to detect requests for attributes declared in said attribute declarations (see [0056])

invoking at least one Real-Time Attribute Processor (RTAP) selector from a plurality of attribute processor according to a predetermined selection schema and to invoke said selected RTAP (see [0030], lines 7-15); and

returning to a requester said attribute value [populating the object] (see [0062]).

However, Sanchez fails to explicitly disclose the further limitations wherein the attributes are to be handled as a real-time attribute whose value is retrievable outside of static memory of a directory structure and obtaining an attribute value from a real-time source external to said directory structure, and by converting said obtained value to conform to a directory request return format. Patel discloses the wherein the attributes are to be handled as a real-time attribute, the value of said declared real-time attribute is retrievable external of said directory structure [attributes fetched in real-time] and being in a format incompatible with a directory access return format and obtaining an attribute value from a real-time source external to said directory structure, said obtained value being incompatible with a directory access request return format, and by converting said obtained value to conform to a directory request return format (see [0074] and [1056]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize concept of fetching dynamic attributes in real-time as disclosed by Patel with the logical device of Sanchez. One would have been motivated to do so in order to introduce the concept of providing customer personalization in real-time to Sanchez

which increases accuracy of the dynamic data and decreases the resources required to poll and push dynamic data to the LDAP (Patel: see [0005]).

**Referring to claim 15**, Sanchez/Patel discloses the article as set forth in claim 14 wherein said software for selecting and invoking an RTAP selector comprises software for selecting an RTAP based upon a variation of a name of said resolved directory attribute (Sanchez: see [0019] and [0031]).

**Referring to claim 16**, Sanchez/Patel discloses the article as set forth in claim 15 wherein said software for selecting an RTAP based upon an attribute name variation comprises software for selecting an RTAP from the group of a logical device, a device address, a name of a JAVA class [Java objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 17**, Sanchez/Patel discloses the article as set forth in claim 14 wherein said software for invoking an RTAP comprises software for invoking an RTAP from the group of a logical device, a device address, a name of a JAVA class [Java objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 18**, Sanchez/Patel discloses the article as set forth in claim 14 wherein said software for parsing a request comprises software for parsing a Lightweight Directory Access Protocol [LDAP] requests for attribute values (Sanchez: see [0008]).

**Referring to claim 19**, Sanchez/Patel discloses the article as set forth in claim 14 wherein said software for returning to a requestor an attribute value comprising

software for returning said value according to a Lightweight Directory Access Protocol (Sanchez: see [0008]).

***Response to Arguments***

13. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Cottingham/  
Supervisory Patent Examiner, Art Unit 2167

Kimberly Lovel  
Examiner  
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26 April 2008  
kml

Application/Control Number: 10/809,583  
Art Unit: 2167

Page 16